



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,725	01/14/2000	Robert Louis Cupo	Cupo-19-3-5	8757
7590	04/16/2004			EXAMINER
Stephen J. Weed Esquire Synnestvedt & Lechner LLP 2600 Aramark Tower 1101 Market Street Philadelphia, PA 19107-2950			CORRIELUS, JEAN B	
			ART UNIT	PAPER NUMBER
			2631	9
DATE MAILED: 04/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/483,725	CUPO ET AL.	
	Examiner	Art Unit	
	Jean B Corrielus	2631	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1,3,7,11,12,16 and 17 is/are allowed.

6) Claim(s) 2,4-6,8-10,13-15,18 and 19 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 5, 6, 8, 9, 10, 13-15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art fig. 5 in view of DERWENT PUBLICATION No. 1996-404860.

As per claims 5, 2, 4, 8, 13, and 18, applicant's fig. 5 teaches a method having the steps of encoding an analog signal by sampling digitizing and encoding segments of said analog signal and generating a plurality of variable length data frames corresponding to said segments, see applicant's disclosure page 1, lines 8-10; filling a fixed length master frame with said plurality of variable length frames a plurality of sync patterns, see fig. 5; modulating the fixed length master frame; and transmitting and receiving said modulated fixed frame over a channel see fig. 5 demodulating the modulated fixed length frame see line 14; the demodulated said fixed length master frame is inherently deformatted to remove the plurality of sync patterns shown in fig. 5 to derive said plurality of variable length data frames and the decoding the variable frames. Applicant's

admitted prior art further teaches the filling of any unused portion of the master frame by zeros rather than a random data pattern. However, as noted by applicant the use of random data is old and well established in the art see background of the invention page 3, lines 21-22. For instance Derwent Publication teaches such feature of the claim. Given that fact, it would have been obvious to one skill in the art at the time of the invention to modify fig. 5, by replacing the fixed data by random data in order to maximize system efficiency.

As per claims 6, 9, 14 as shown in fig 5 said fixed master frame is filled with said plurality of variable frames and with a sync signal preceding each variable frame.

As per claims 10, 15, and 19, the broadcasting receiver/transmitter is a digital audio broadcasting receiver/transmitter. See fig. 5.

Allowable Subject Matter

3. Claims 1, 3, 7, 11, 12, 16 and 17 are allowed.

Response to Arguments

4. Applicant's arguments filed 3/4/04 have been fully considered but they are not persuasive. It is alleged that the Derwent publication teaches random data rather than using pseudo random data. However, it is noted that a pseudo-random signal, is just a type of "random signal". For the sake of argument, note that the Derwent Publication teaches the use of a random signal.

In response to applicant's argument that the reference does not suggest inserting random data in the master frames to reduce peak to average power ratio, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Applicant further asserted that that the reference and the claimed invention are not compatible or are not in the same field of endeavor. It is noted that both the reference and the claimed invention deal with a frame formatting technique. Hence, they are compatible to each other.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2631

6. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE") and (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is (703) 305-4023. The examiner can normally be reached on Monday-Thursday from 7:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour, can be reached on (703) 306-3034.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.


Jean B. Corrielus
Primary Examiner

TC-2600

4/15/04